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CAR-LOT MARKETS AND HOW THEY ARE SUPPLIED

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Raw materials for use in manufacturing naturally tend to move to market in car-lots. Wheat and cotton regularly go to the mills and live stock to the packing houses in wholesale quantities; for the miller, the spinner, and the packer are essentially car-lot buyers. So for other raw materials, the usual unit of shipment has long been the carload. In regard to another class of commodities, those ready for immediate household consumption, the carload has been, to some extent, adapted to market conditions. A product that can be kept for a few weeks, at least, awaiting consumption, may be received one or more carloads at a time and stored until absorbed by the retail trade. This is true of such articles as potatoes, cranberries, apples, eggs, butter and fresh meats. When a carload of one of these commodities reaches a market where, for instance, a week's demand will not take more than one-half a car, the balance may be held in storage without serious loss until sold. Such commodities of relatively good keeping qualities do not require such a highly developed car-lot marketing system as do more highly perishable articles. An excess of supply over demand in one market may be relieved by storage or by reshipment to another market, for the less perishable commodities.

The marketing of highly perishable articles gives rise to special problems. Strawberries, for instance, can not be kept many days awaiting consumption; even cold storage does relatively little to relieve a glutted market. An over-supply in a given city of such things as berries, peaches, cantaloupes, and tomatoes regularly causes low prices, if not loss through decay. Many of these highly perishable fruits and vegetables are shipped in car-lots, and special features in distribution have been developed to meet the peculiar needs of this trade.

Consumption Zones

The market capable of disposing of a carload of such produce is called in this article a "car-lot market." The consumption at such a place includes the retail trade within wagon haul of the wholesale

produce warerooms and also outlying towns and cities to which small shipments may be made profitably. The radius of such a zone of consumption for a given article depends partly upon its relative value compared with the less-than-carload freight charge, partly upon the character of the transportation service, and partly upon the encroachment of the consumption zones of other car-lot markets. Local refrigerator-car services are maintained between some large cities and points in the surrounding country for the purpose of distributing and of collecting small consignments of perishable articles. An illustration of this service is afforded by a recent schedule of the Chicago and Northwestern Railway. One refrigerator-car train of this road was scheduled to leave Chicago every night, except Sunday, at 9.45, and consisted of cars for fourteen different routes. From this train, cars were transferred to other routes or left for local use at the following points in Iowa: one car was taken off at Cedar Rapids, another at Marshalltown, still another at Ames, a fourth at Tama, while at Eagle Grove three cars were detached and transferred to three different trains; at Belle Plaine two more trains were each given a car, and at Mason City still another car was taken off. This procedure was reversed on the return trip of this train, refrigerator cars being collected at various points and taken to Chicago.

For many car-lot markets, ordinary local freight service moves the parcels out to neighboring towns, especially to those within a day's haul.

Supplementing the steam roads in distributing this produce from car-lot markets are boat lines and interurban electric roads. Cincinnati is an example of a car-lot market well served in this trade by all three kinds of transportation—steam railroads, boats and trolley lines.

The receivers at car-lot markets include commission merchants, jobbers and agents of shippers. Some of these agents represent mercantile concerns and others represent farmers' coöperative associations. One function they have in common is to receive the car load, possibly sort and repack its contents, divide it, then sell it to jobbers, retailers, or any others who will buy in wholesale quantities. In some cities this produce is sold at freight terminals, where the cars are unloaded. Such a market place is in New York on certain piers along North River. Here the loaded cars are delivered by car-float from the opposite shore, and the contents are unloaded and exposed for sale.

The jobbers, retail merchants, push cart men, and other buyers at this market place haul their purchases away, thus saving any haul from pier to wholesale commission store.

Market Places

Another public market place for car-lot shipments is the auction room. Some of these are located at freight terminals and others are nearer the produce commission houses than the freight terminals. One auction room in New York is on one of the Erie Railroad piers, while another is a few blocks back from the river, in the midst of the produce district in the neighborhood of Washington Market.

The typical market place for fruits and vegetables is the "produce district" found in practically all cities important enough to be classed as car-lot markets. These localities consist of groups of wholesale produce stores and are often located within convenient distance of some freight terminal. In the older cities, which have had considerable water trade, produce commission houses are apt to be grouped near the wharves. Some such business sections, as Third street in St. Louis, Pratt street in Baltimore, Walnut street in Cincinnati, Dock street in Philadelphia, and South Water street in Chicago, are located near the wharves and landings over which fruits and vegetables were received from boats generally long before the railroads developed their modern fast-freight services. Other produce districts are near railroad freight terminals, as Chestnut street district, near 32d, in Philadelphia, Penn avenue in Pittsburg, and Delaware street in Indianapolis; while still other groups of produce stores are near some public retail market, as is the case with parts of Louisiana avenue and B street in Washington, and the West Sixth street produce district of Cincinnati.

Practically every city in the United States, of 25,000 population or more, and possibly many smaller ones, can consume within a few days a carload of one or more kinds of highly perishable fruits or vegetables. According to the report of one of the large merchant shippers of Jacksonville, Florida, in 1912 car-lot shipments of Florida produce were made to 210 different cities, located in 46 states. This number includes most all the cities of this country having a population of at least 25,000. In response to an inquiry made by the writer, under the authority of the United States Department of Agriculture,

in 1910, reports as to car-lot receipts were made by freight officials and by merchants in 103 cities. Of these, 87 were mentioned as car-lot markets for peaches, 86 for watermelons, 77 for cantaloupes, 71 for strawberries, 66 for tomatoes, 53 for grapes, 13 for cherries, 11 for cucumbers, 11 for green beans, 11 for apricots, and each of about 25 other commodities of this class was reported to have car-lot markets in from 1 to 10 different cities. These figures are probably incomplete, even for the 103 cities represented; hence, the total number of car-lot markets for each of the products just mentioned was possibly double the figures quoted.

In this inquiry an attempt was made to determine approximately a rate of increase for car-lot traffic in highly perishable fruits and vegetables. Figures based upon reports from 42 cities indicated an average increase of 40 per cent from 1900 to 1910 in the number of car-lot markets for this kind of produce.

Sources of Supply

The sources of supply for these large centers of consumption may be divided roughly into two classes: the region within wagon-haul or within a radius not too great for the economical shipment of less-than-carload quantities; and, second, the regions beyond such radius. To these two may be added, for many cities, a third class of regions of supply consisting of places connected with the market by water transportation. This third class differs from the first in that it often includes places of production much farther from market, and also from the second class in that the former embraces territory which is less subject, if at all, to the limitations of "car-lot" traffic, although it shares in certain of its advantages. A boat can carry one crate of produce as quickly and efficiently as a carload, and the freight rate by boat, especially over some of the principal fruit and vegetable routes along the Atlantic coast, is often not much higher for a small than for a large consignment.

Illustrations of the wide range of sources of supply of certain products at large markets are afforded by price quotations. New York City's strawberries in the spring and early summer of 1912 were brought from various regions along the Atlantic coast, extending from Florida to New York state, inclusive; and late in the fall California contributed strawberries to this market. Cantaloupes from Cali-

ifornia, Virginia and Georgia were quoted in this city on the same day, while Colorado, New Jersey, Delaware and Maryland were also among the states sending cantaloupes to this market. Kansas City's lettuce supply in 1912 was taken from nearby fields, also from California, Florida, New York, Louisiana, Colorado, Texas and Arkansas, and no doubt from other states not mentioned in the price quotations.

The sources of supply of a given market for a given commodity depend partly upon variations in quantities marketed from season to season. For instance, Georgia competes with Arkansas in certain markets in the sale of peaches; with a plentiful Georgia crop and a small crop in Arkansas, the Georgia peaches would get into markets farther west than if the Arkansas crop were large enough to supply those western cities.

Not only is the supply of perishable fruits and vegetables for a large city drawn over a much larger radius than formerly, but it is also drawn for a much longer period each year. The strawberry season for many cities begins not later than the first part of November and extends until late the next July. String beans, tomatoes and lettuce are "in season" practically throughout the year. The cantaloupe season has been lengthened until now it extends over five months of the year in some markets. And so on with a considerable list of highly perishable fruits and vegetables; the so-called "seasons" have been lengthened, and the consumer has a larger range in the choice of his food supplies, especially during that part of the year when "home grown" produce is scarce.

Moreover, a crop failure in one or, at most, a few localities does not have such a marked effect upon prices or supplies in a given city, as was the case before the development of the present wide system of distribution.

Necessity for Car-Lot Shipments

The bulk of the long-distance movement of these perishable articles goes in car-lots. The necessity for quick dispatch forbids the delays occasioned by transferring freight from one car to another; the carload is therefore the unit required by conditions of quick service. These carloads, all consisting of similar kinds of perishable freight, are readily separated from other kinds of commodities and given such service as is peculiarly adapted to their needs. Some features of this fast freight service are of public interest.

Car-lot shipments of this perishable produce are required also over many routes by the difference in freight rates on carloads as compared with smaller lots. For instance, the rate on peaches from Fayetteville, Arkansas, to Omaha, Nebraska, in November, 1912, was 51 cents per 100 pounds, while on less-than-carload lots the rate was 99 cents per 100 pounds. At the same time, the carload rate on celery from Sanford, Florida, to Boston, Massachusetts, was 41 cents per crate, if in ventilator cars (minimum carload of 420 crates), while the less-than-carload rate was 51 cents. If in refrigerator cars, the minimum load being 350 crates, the rate was 47 cents per crate.

Another thing that makes the carload the best unit for long distance shipments is the fact that much of this produce has to be moved under refrigeration and it is difficult, if not impracticable, to refrigerate small quantities over long routes.

How Small Lots are Combined

Many a farmer does not produce enough of a commodity to make a carload for a single shipment, yet he ships to a distant market under conditions requiring the unit of marketing to be the carload. To accomplish this, it is necessary to combine the contributions of a number of growers. This is sometimes done through a system of concentrating into carloads, at some "transfer platform," the small lots collected at various neighboring stations. One such "pick up" system, under the direct management of the railroad companies concerned, is credited with giving considerable help to truck-growing in regions along the Atlantic coast.

Another method of combining small shipments into carloads is that followed by one or more forwarding agents, whose headquarters are at Chicago, and who have their agents along various railroads, especially in the South. The consignor delivers to the forwarder's local agent, for instance, a few crates of peas consigned to a certain firm in Chicago; another shipper has a case of eggs for another Chicago dealer; a third shipper hands over to the forwarder's agent another package consigned, let it be assumed, to a third man; and so on through a list of possibly twenty to sixty or more separate consignments. All of these may be put into one car and consigned to the forwarder in Chicago, who pays the railroad company at carload rates. On the arrival of the car at destination, it is opened by the

forwarder and the separate consignments delivered to the respective consignees. For this forwarding service the charge to the shipper is said to be less than the less-than-carload rate charged by the railroads but somewhat more than the carload rate; the excess being intended to pay the forwarder for his services and risk.

The making up of carloads is one of the most important functions of those cöoperative marketing associations that handle fruits and vegetables. The various small shipments of individual growers are thus readily combined into the larger units which are required by long-distance market conditions.

Special Features in Freight Service

To handle the traffic in perishable commodities as well as other freight requiring prompt dispatch, many railroads have instituted fast freight services. Trains in such a service are moved promptly and at relatively high rates of speed. Passing through territory where it is necessary to stop often to receive or transfer cars, one of these trains will make possibly sixteen or more miles per hour, including stops; and, when stopping seldom except at division terminals, the speed will average eighteen or more miles per hour. The actual speed while running is of course higher than the rates just quoted. These rates are approximately what are made on different parts of the routes between New Orleans and Chicago, also between Tampa and New York.

One of the most valuable features of these fast freight services is the method of reporting the progress of each car by wire, so that the consignee or shipper may learn the location of a given car at a given time and also the probable time of its arrival at a certain market. These "passing reports," in addition to telegraphic news of market conditions, make possible an elaborate system of distributing perishable fruits and vegetables among various markets according to their respective needs.

The Georgia Fruit Exchange, for instance, consigns six cars of peaches to Cincinnati, and while they are in transit the manager of the exchange learns that the movement of peaches to St. Louis is light and that two carloads will sell there at better prices than east of the Mississippi river. Accordingly orders are sent to Cincinnati to divert two cars to St. Louis; and, guided by other market news, the manager

orders one car to be delivered at Cincinnati, another sent to Indianapolis, another to Cleveland, and the sixth to Chicago. Again, an instance: suppose the California Fruit Distributors have three cars of cherries on the way to New York, all due there on the same day; but from advices received it seems probable that only one carload will sell in that city at remunerative prices. Consulting the passing reports, which this association maintains for itself, it is learned that the three cars have not yet reached Council Bluffs, Iowa. Accordingly, word is sent to that diversion point to divert two cars, one to go, for instance, to Pittsburgh and the other to St. Louis.

Passing reports, or rather reports made in advance of arrival, are sometimes given for boats also. The following quotations from the *Daily Fruit Report* of the Boston Fruit and Produce Exchange, for June 13, 1913, illustrates "passing reports" of both rail and water lines:

The Norfolk steamer *Howard* due to arrive here this morning at about 10.50 has 1,433 barrels of potatoes, 41 crates of cabbages, 1,730 baskets of beans, and 137 boxes of beets.

The Savannah steamer *City of Macon* due to arrive here late today has 5 barrels of potatoes and 4 crates of tomatoes.

The Norfolk train (D2) due to arrive here tomorrow (Saturday) has 200 barrels of potatoes and 150 baskets of beans.

The Norfolk train (D10) due to arrive here tomorrow (Saturday) has 400 barrels of potatoes and 25 baskets of beans.

Berries passing yesterday, due to arrive here tomorrow: 3 cars at Wilmington, Del.; 2 cars at Salisbury, Md.; 2 cars at Camden, N. J.; and 3 cars at Lakehurst, N. J.

The Savannah steamer *City of Memphis* due to arrive here Monday, June 16, has 97 crates of tomatoes.

Potatoes from Aroostook County, Me., passed Bangor 24 hours closing 8 o'clock this morning: 9 cars for Boston and 9 cars for other points.

Information like the above helps the Boston produce dealers to estimate in advance the daily supplies consigned to that market and to provide for their profitable distribution.

Market News

Each car-lot market is interested in reports similar to those just quoted. Wholesale dealers need to know how much of a given kind of perishable produce is on its way or may be diverted to their market. The regions and routes with which a dealer should keep in constant touch vary with commodities and with seasons. During the Florida

tomato movement, practically only one set of routes is to be watched for this vegetable—those routes leading out of Florida; and, among the dealers at car-lot markets, only those who handle tomatoes are vitally concerned with this part of market news. Later in the season it would be necessary to watch tomatoes “rolling” from a number of different places of production. And so, for other parts of current market news, each of a number of different interests is concerned with a special set of returns, which is to some degree independent of the rest of the news. Not only quantities in transit but also prices and demand at various points are items in these reports. The producer is concerned only with his own kind of commodity and those which may serve as substitutes for it. Many kinds of fruit are to some extent interchangeable in the household, and for commercial purposes are practically one commodity. The same is true of some vegetables. The information which the producer needs is confined generally to fewer commodities than the merchant would include in his set of items.

This news, to be of use, must be collected and given out promptly. Suppose ten cars of Georgia peaches are just reported as entering Potomac yards, Virginia, one of the chief diversion points. The manager of the marketing association which has shipped the cars, or his representative, needs to know at once the prices and prospective supplies in different cities that he may send orders to Potomac yards as to the final destination of each car. One day’s delay in receiving this information may result in one or more cars being sent to a glutted market and the peaches sold at a loss. In the distribution of perishable fruits and vegetables it is necessary for much, if not most, of the effective market news to be disseminated by wire. Crop conditions, prospective shipments, and some general market conditions are reported in trade circulars and periodicals and have their use also, but the printing press and the mails are not quick enough for many of the most important items.

Two leading defects in this telegraphic news service are worthy of mention, defects recognized by producers and merchants, and intelligent steps are being taken to bring about an improvement. One of these faults is the occasional failure to report all important items relating to quantities about to be shipped or already on the way. A second defect in this quick news service is that there are many producers whom it does not yet reach. They have to select a market without proper information as to what it may offer; and many a shipment sent under such conditions is sold at a loss.